



# UNITED STATES PATENT AND TRADEMARK OFFICE

*clw*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/676,631

09/30/2003

Roopesh R. Varier

6533/53778

7835

30505 7590 03/21/2007  
LAW OFFICE OF MARK J. SPOLYAR  
2200 CESAR CHAVEZ STREET  
SUITE 8  
SAN FRANCISCO, CA 94124

EXAMINER

NGUYEN, HANH N

ART UNIT

PAPER NUMBER

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/676,631	<b>Applicant(s)</b> VARIER ET AL.	
	<b>Examiner</b> Hanh Nguyen	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 9/30/03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 18 is objected to because of the following informalities:

In claim 18, “their” on line 4 is required to be deleted because it raises indefinite meaning. Appropriate correction is required.

### ***Specification***

The abstract of the disclosure is objected to because the number “6533/53778” should not be included in the lower left corner. An abstract is only allowed to have one paragraph. Therefore, the number “6533/53778” is required to be deleted. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: the applying step is “conditioned”... as stated in claim 9 is not clearly disclosed in the specification. Applicant is required to explain what is meant by “conditioning the applying step ...”

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 9, 10, 13, 16, 17 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2, 10, 13 and 19, what is meant by “applying the virtual bandwidth limit to a bandwidth management device..” ?

In claim 9, it is not clearly stated what is meant by “ the applying step is conditioned on the difference between the computed virtual bandwidth limited and the previously applied virtual bandwidth limit not exceeding a threshold value”. Further, is the “ previously applied virtual bandwidth limit” referred to the “ applied virtual bandwidth limit” in claim 2 ?

In claims 16, 17, what is meant by “the load is exponential weighted moving average...”.

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “a plurality of interfaces” claimed in claims 1, 10, 13 and 19 must be shown in the drawing or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 10-15 and 18-21 are rejected under 35 USC 102(b) as being anticipated by Graham et al. ( Us Pat. 6,097,722).

In claims 1, 2, 6, 8, 10, 13 and 19, Graham et al. discloses a method facilitating bandwidth management across a plurality of access links (see heading of reference; bandwidth management process using virtual paths), comprising monitoring the data throughput at a plurality of interfaces in at least one routing system (see fig.1A, col.9, lines 25-40; usage monitor 145 checks service agreements at interfaces 141A, 141B for client A in VPN network 170; wherein the service agreement at interface 141A is 93 Mb/s and interface 141B is 62 Mb/s); wherein the plurality of interfaces ( see fig.1A; interfaces 141A and 141B) are operably connected to respective access links ( see fig.4A; see col.11, lines 12-20; interface 141A corresponding to virtual path groups 401 and 402); and computing a virtual bandwidth limit (see col.13, lines 1-20, table 3; bandwidth manager 150 dynamically manages bandwidths utilized by the virtual paths by changing the VP sizes. For example, voice bandwidth is limited to 60% and data bandwidth is limited to 40% during the day from 6AM to 6PM and lines 32-50 on col.13) based on the capacity of each of the plurality of interfaces (see col.11, lines 25-30 and figures

Art Unit: 2616

4A&B; total bandwidth capacity at interfaces 141A and 141B, each is 155Mb/s) and the data throughput detected at the plurality of interfaces (see col.13, lines 1-5; in anticipation to traffic volume levels). Graham et al. discloses applying the virtual path limit to a bandwidth management device operably (see fig.7A, col.12, lines 60-67; bandwidth manager 150 adjusts or increases size of virtual path 702 to provide extra capacity 704 to accommodate demands of clients on ATM network) connected to a communication path between a network ( connected ATM network) and the access links.

In claims 3, 4, 11, 12, 14, 15, 20 and 21, Graham et al. discloses the data throughput is inbound / outbound data throughputs ( see col.9, see col.25-35; monitor 145 checking directions of the calls) and the virtual bandwidth limit is an inbound /outbound virtual bandwidth limit ( as to how to make a call connections).

In claim 5, Graham et al. discloses comparing the aggregate bandwidth observed at the plurality of interfaces to the aggregate bandwidth observed at a bandwidth management device operably connected to a communication path between a network and the access links (see col.13, lines 30-50; bandwidth manager 150, by checking the customer contract to determine whether it is appropriate to make needed bandwidth changes. If it is not permissible to make the needed bandwidth changes, then bandwidth manager 150 destroys virtual channel. The bandwidth checking inherently including the step of comparing the needed bandwidth (aggregated bandwidth at interface) to the virtual bandwidth limits (aggregated bandwidth at bandwidth management device).

Claim 7, Graham et al. discloses reduce bandwidth reducing the virtual bandwidth limit if the aggregate bandwidth observed at the plurality of interfaces is greater than the aggregate

bandwidth observed at a bandwidth management device operably connected to a communication path between the network and the access links ( see fig.4A&4B, increasing or decreasing client needed bandwidth based on utilization levels ).

In claim 18, Ggraham et al. discloses a traffic classification database (col.9, table 1) operative to associate traffic classes (voice bandwidth limited to 60%) to data flows ( QOS 1 limited to 20% bandwidth and QOS 2 limited to 50% bandwidth); and wherein the flow control module ( bandwidth manager 150) is operative to apply disparate bandwidth utilization policies to data flows depending on their respective traffic classes (see col.13, table 3 manages bandwidths utilized by Vps such as voice bandwidth is limited to 60% and data bandwidth is limited to 40%).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ma ( US pat. 6,493,317 B1);

Levy et al. ( Us Pat. 7,065,048 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Thursday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

A handwritten signature in black ink, appearing to read 'Hanh Nguyen', written in a cursive style.

**HANH NGUYEN  
PRIMARY EXAMINER**